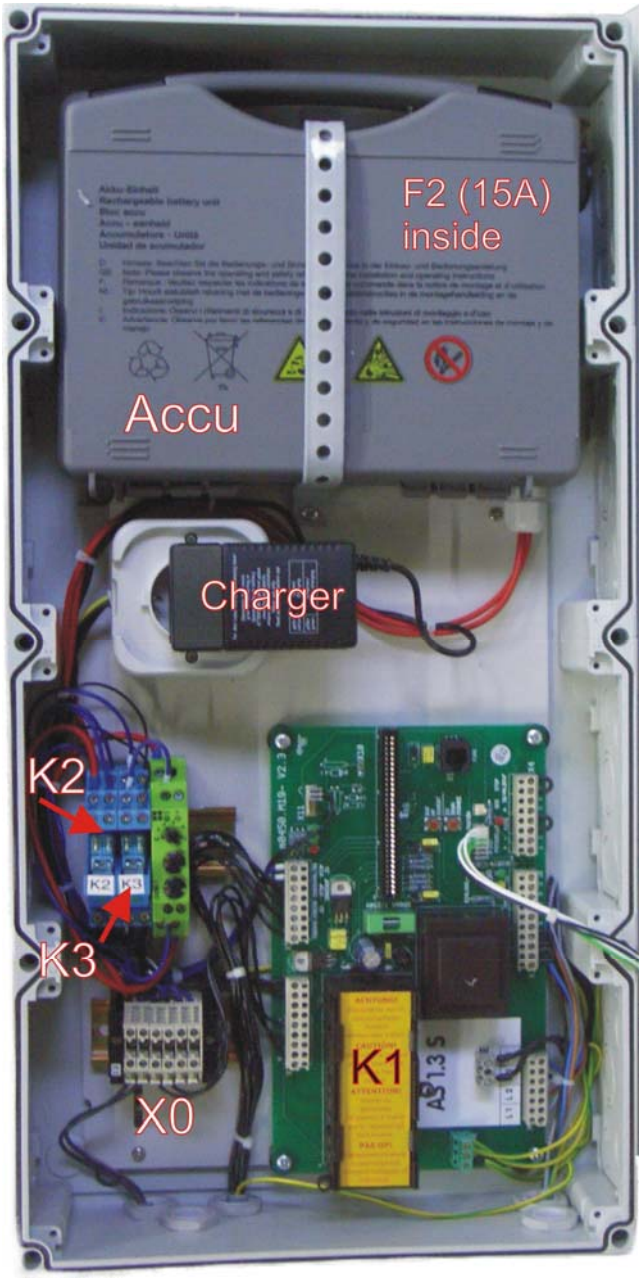
Gate control FS 400

For fire-proof drives
based on AS 130 (fire alarms are specified as closer)

Detailed view



Legend

K2	→	Duplication of limit switch CLOSED
F2	→	Control protection
K3	→	Triggering direct current motor
X0	→	Connecting terminals
K4	→	Time lag relay delay CLOSED

Please find further details related to board plate AS 130 in enclosed detailed description „board plate AS 130“.

Description of function

The control FS 400 should trigger fire-proof drives which closes the fire doors automatically in case of fire. This function is controlled by a fire alarm contact and is active without primary power supply (loss of power). Of course, in operation mode at normal rating, the drive can also be operated by a conventional triple switch.

The control is based on the MFZ control board plate AS 130 which overtakes the fundamental functions of gate control. In the basic version, it is conceived for dead-man operation mode. But it can be individually extended by plugging in plug-in modules.

The gate is opened and closed by the motorised drive. Triggering of auxiliary motor is overtaken by relay K2 and K3.
The motor receives its power supply (24V DC) through the integrated accumulator which is permanently loaded in operation mode at normal rating. In case of fire, the gate is closed by a permanent signal from the fire alarm. This occurs by means of the additionally installed direct current motor. In case of loss of power, the direct current motor continues to be supplied with power by the accumulator. This way, this function is also effective in case of fire.

Safety instructions

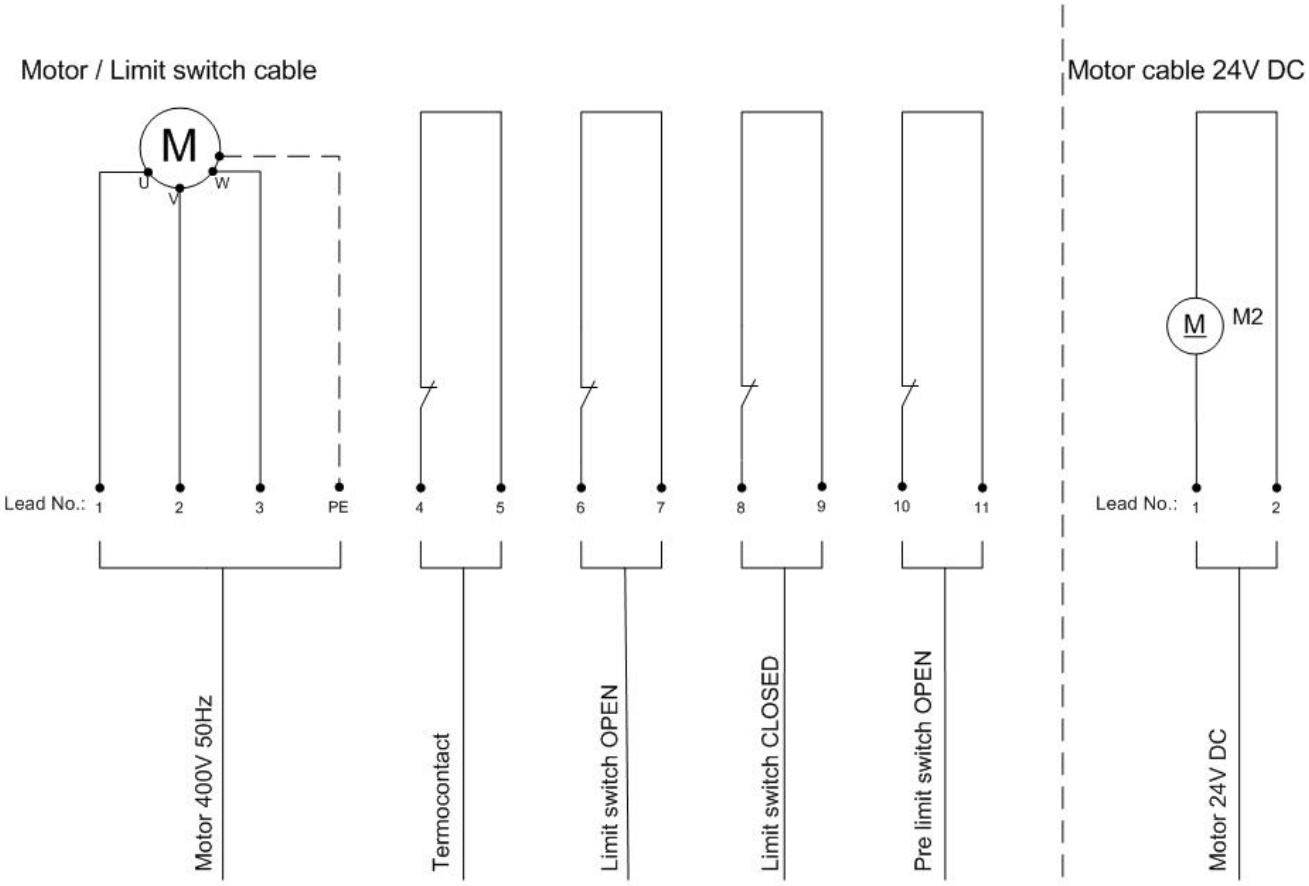
- Consider the valid directives and regulations related to motorised gate units in your country.
- Installing and maintenance works on the control FS400 should only be done by personal specialised in electrics.
- Consider the protecting regulations!
- During works on electrics, the unit should be switched off power.
- Dead-man operation mode is only allowed if the unit is visible from the instruction devices.

If you do not consider and respect the safety instructions, you will be the solely responsible of resulting personal injuries and property damages.

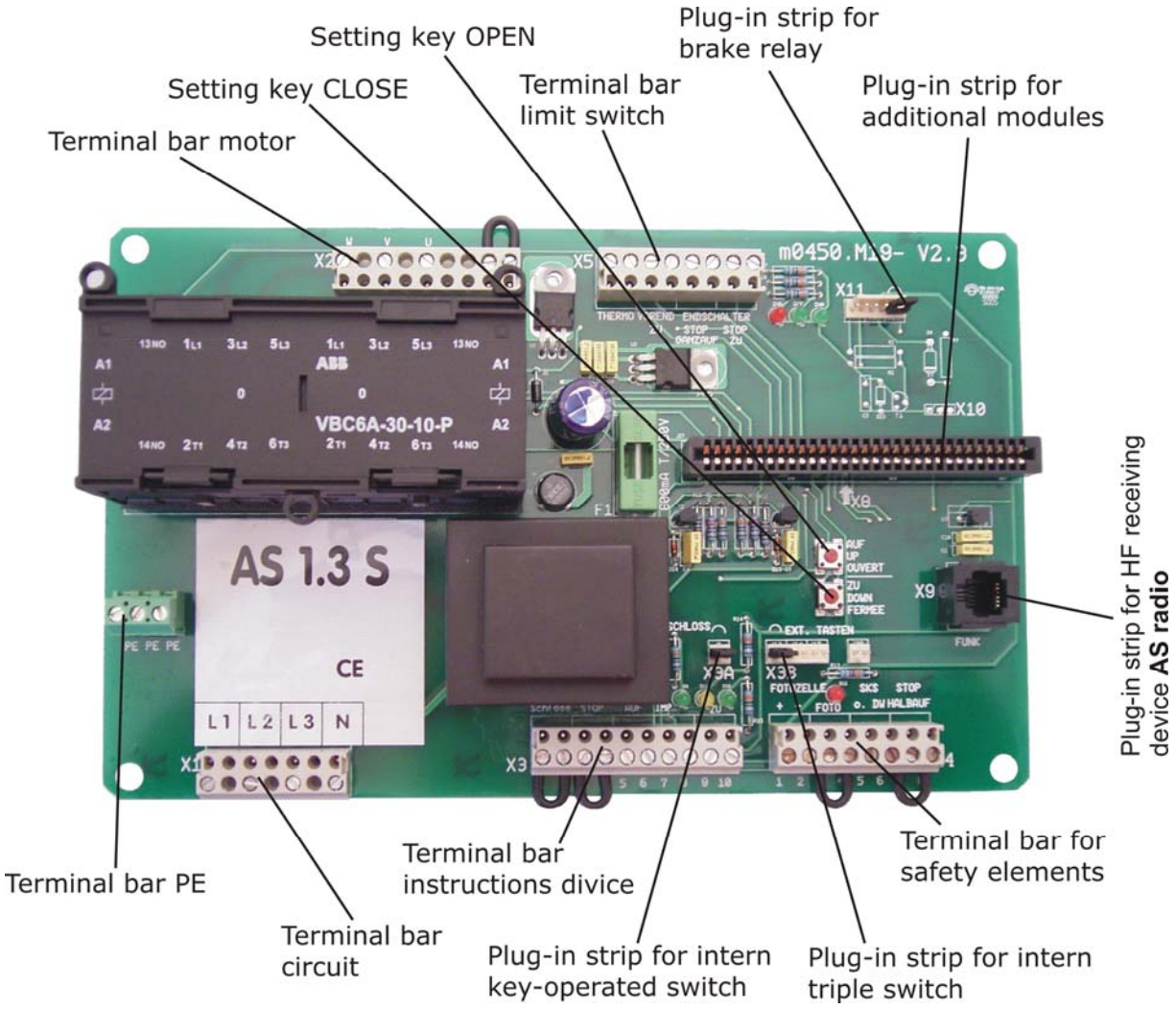
Mains supply

- In case of fixed connection, an all pollo master switch must be planned.
- In case of connection of rotary current, only use a triple block safety cut-out (10A).
- Be aware that the supply voltage corresponds to the data mentioned on the type plate.
- Be aware that in case of connection of rotary current at the outlet, there is a right handed rotary field.
- Drives and controls should only be mounted indoor.

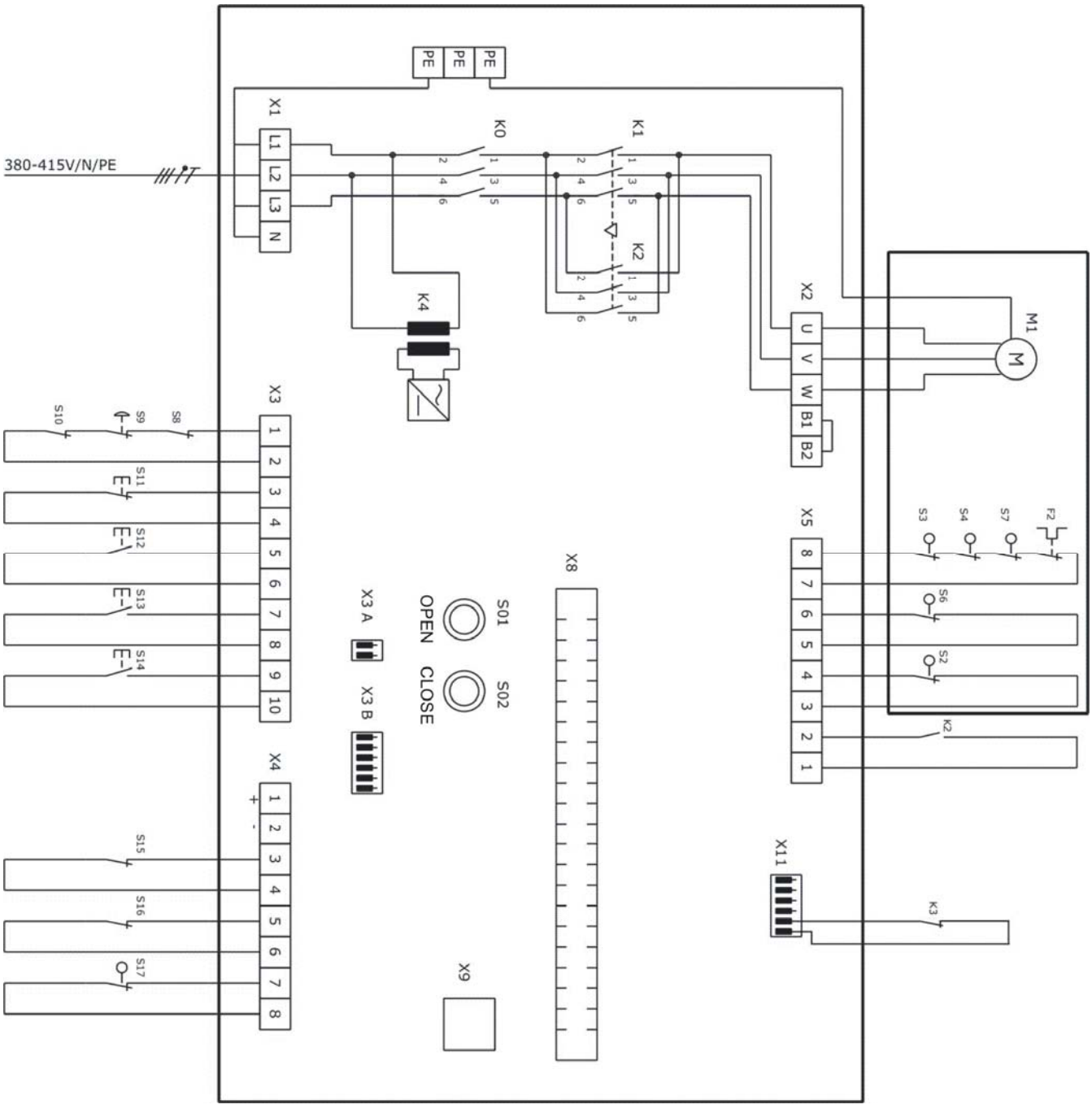
Conductor connection



Grundplatine AS 130



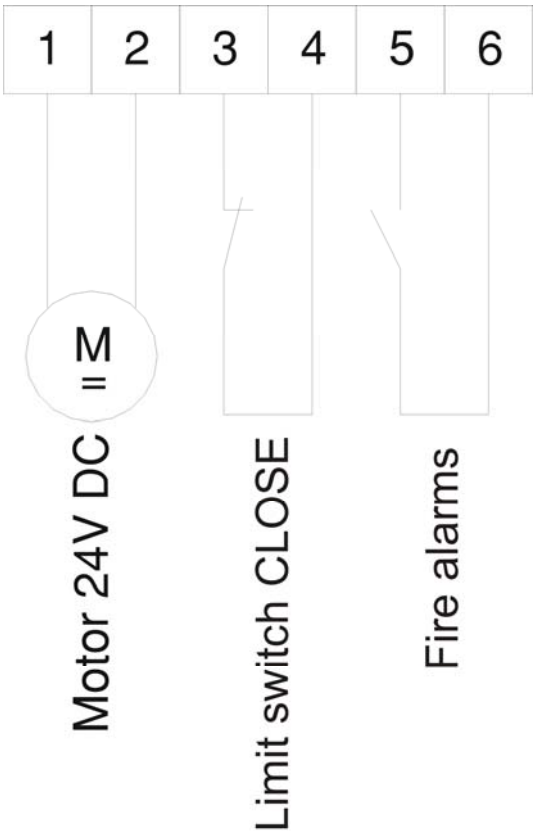
Connecting scheme AS 130

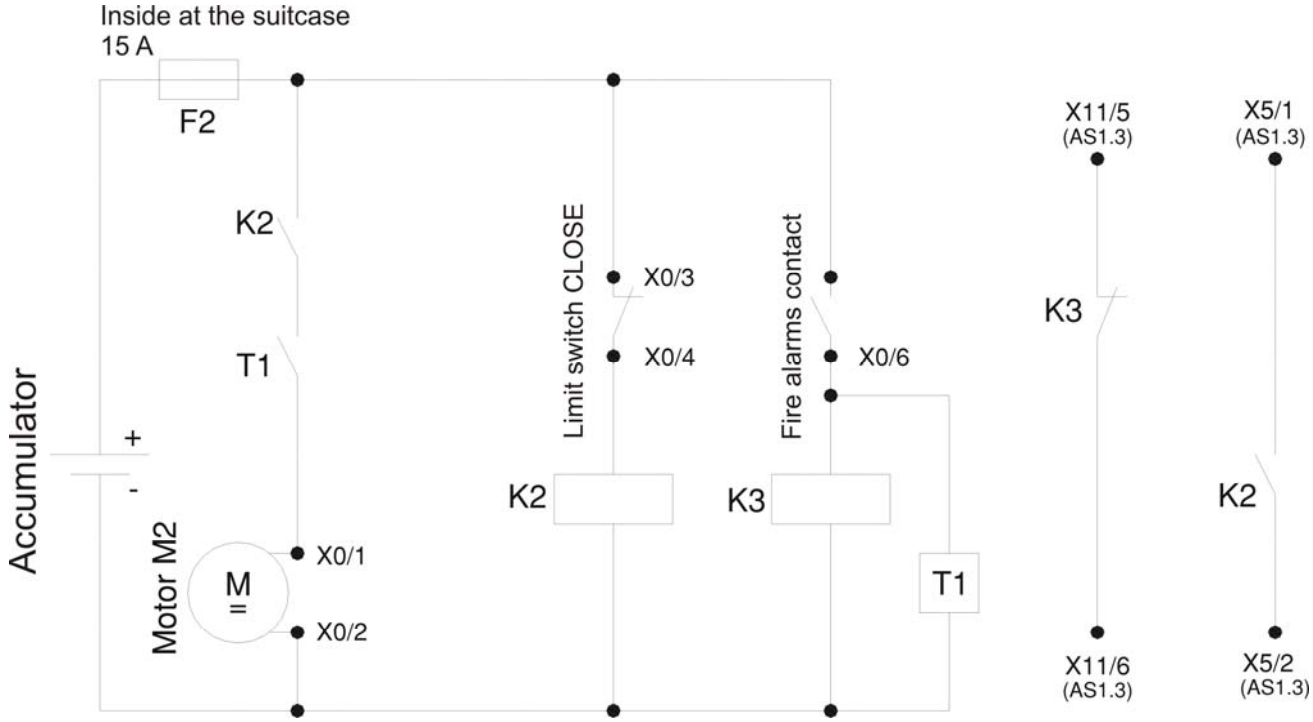


Legend board plate AS 130

M1	Motor
M2	Motor 24V DC
S01	Setting key OPEN
S02	Setting key CLOSE
S1	Additional limit switch OPEN
S2	Limit switch OPEN (opener)
S3	Safety limit switch OPEN (opener)
S4	Safety limit switch CLOSE (opener)
S5	Limit switch CLOSE (opener)
S6	Additional limit switch CLOSE
S7	Safety limit switch emergency manual operation (opener)
S8	Slack rope switch (opener)
S9	Emergency shutdown (opener)
S10	Contact of integrated door (opener) / feed protection
S11	Button STOP (opener)
S12	Button OPEN (closer)
S13	Button impulse (closer)
S14	Button CLOSE (closer)
S15	Passage of light barrier (opener)
S16	Closing edge protection
S17	Limit switch HALF OPEN (opener)
K4	Time lag relay CLOSED
X1	Terminal bar mains supply
X2	Terminal bar motor
X3	Terminal bar instructions switch
X3.A	Terminal bar for intern key-operated switch
X3.B	Terminal bar for intern triple switch
X4	Terminal bar for safety elements
X5	Terminal bar limit switch
X8	Plug-in strip for additional modules
X9	Plug-in strip for HF receiving device AS radio
X11	Plug-in strip for brake relay

X0

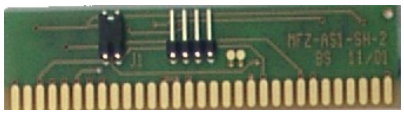

1
2
3
4
5
6
M
Motor 24V DC
Limit switch CLOSE
Fire alarms


Inside at the suitcase
15 A
F2
K2
T1
Accumulator
+
-
Motor M2
M
X0/1
X0/2
Limit switch CLOSE
X0/3
X0/4
K2
Fire alarms contact
X0/6
K3
T1
X11/5
(AS1.3)
K3
X11/6
(AS1.3)
X5/1
(AS1.3)
K2
X5/2
(AS1.3)

Accessories related to board plate AS 130

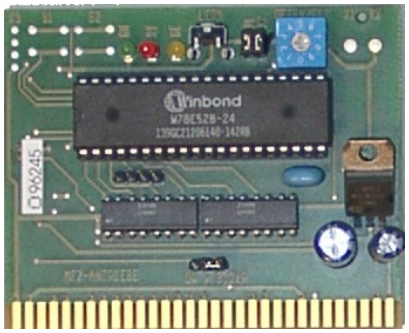
ASO 11

Module for self-locking OPEN



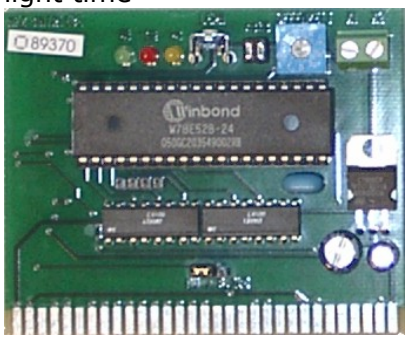
ASO 13

Module to connect SKS and AS radio
Automatic reclosing



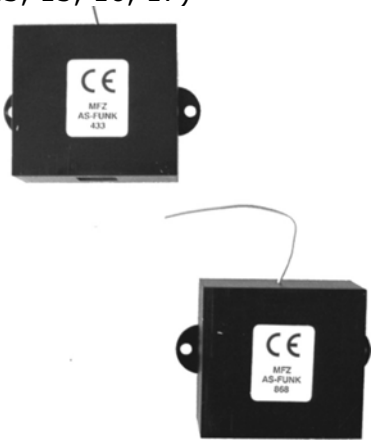
ASO 16

Module to connect SKS and AS radio
Automatic reclosing with red light time



HF – Receiver

for radio 433/868 MHz
(Function OPEN/Stop/CLOSE)
(Only with board plate ASO 13, 15, 16, 17)



Single channel hand-held transmitter

for radio 433 MHz

2 channels hand-held transmitter

for radio 868 MHz

Battery charger

Be aware!

During operation of battery charger, dangers may arise from:

- Danger of explosion

(by development of explosive gazes during charge of lead accumulators),

- Fire hazard and danger of short-circuit

(by electric shock in combination with humidity).

To exclude endangering situations:

- care for sufficient aeration.
- avoid fire and open light.
- only use the battery charger in dry places indoor.
- protect the device from humidity.

Display (type Friwo):

LED red:

The device is in charging mode.

LED green:

The charging process is completed, the device is in conservation mode.

Safety instructions

The battery chargers should charge exclusively lead batteries free of maintenance. The charging device should only be opened by specialised personal and never be operated in open state. The guarantee expires in case of damaging the device by inappropriate opening. Before start up the device, make sure that the area is aerated enough. The device should only be operated in closed places and not exposed to humidity.

Any change on the device lead to expiry of device licensing.

Instructions related to charging of lead batteries free of maintenance

Before longer interval of use (two possibilities)

➲ Separate your battery from battery charger and store it fully charged.

In case of interval of use longer than three months, charge the battery at least 36 hours.

➲ You can go on charging your battery with switched on battery charger (conservation charging). It is recommended to store the battery in a cool place.

High temperatures

It is not recommended to charge the battery in an ambient temperature of more than 30°C. Your battery charger is adjusted by fabrication with a charging tension that is based on an ambient temperature of 20°C.

Low temperatures

Charging the battery at an ambient temperature of less than 10°C is not recommended. By lower temperature, the extractable capacity is lower.

Total discharge

Please avoid total discharge. Nevertheless, if it comes to a total discharge, charge the battery soon after, longer than 24 hours.